

Application No. 10/797,859
Date: February 3, 2006

REMARKS

Claims 1-35 were rejected under 35 USC 103(a) US Published Application Publication No. 2002/0168145 to Yin. This rejection is respectfully traversed. The undersigned attorney, the assignee's engineer Laszlo Takacs and Examiner Peng held a telephone interview on February 3, 2006. Applicant's summary of the interview appears below.

Independent claim 1 distinguishes over Yin by reciting a light pipe with a polymer core, such as used for bulk transmission of visible light in light pipes having typical diameters of 3 mm to 25 mm (see spec. at 3, II. 1-2). On the other hand, the optical fibers of Yin are made of quartz—not of polymer. This is apparent from Yin's reference to fibers being coupled to "optical networking components." Para. 2.

Polymer "light pipes" are used for bulk transmission of light in the visible range of frequencies, and have typical diameters of 3 mm to 25 mm (see present Spec. at 3, II. 1-2). On the other hand, quartz-core "optical fibers" as taught by Yin are used for data transmission in the infrared range of frequencies, and are drastically smaller in size. For instance, hundreds of optical networking fibers together are the size of a typical single large core light pipe having a polymer core.

Further, different processes are used for adding anti-reflective (AR) structure to polymer light pipes versus quartz optical fibers. AR structure associated with quartz optical fibers is fabricated with semiconductor processes. The starkly different material properties between polymer (plastic) light pipes and quartz optical fibers concern such issues as the impracticality of making AR coatings using semiconductor processes—typically employing a vacuum process—on long lengths of large-core polymer light pipe. Polymer light pipe is not compatible with such a vacuum process, whereas Yin's quartz optical fibers are compatible.

Concerning the present device-type claims, Yin bonds an AR coating to an "optical component" (e.g., 12, Fig. 1D) and not an optical fiber. According to the claimed invention, an AR coating is bonded ultimately to the polymer light pipe. Yin's use of a use of an index matching layer of oil or epoxy (e.g., 36, Fig. 1D) is incompatible with new dependent Claim 53. Yin's epoxy (36, Fig. 1D) between the AR coating and the "next device" cannot be employed because it would create a permanent mechanical connection. Further, Yin's oil (36, Fig. 1D), while not creating a permanent connection, poses problems of maintenance and installation difficulty. Claim 53 distinguishes over Yin's use of epoxy or oil for item 36 in Fig. 1D.

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New dependent Claim 52 defines a sequence of materials, etc., which differs from that taught by Yin. As mentioned above, Claim 53 defines an aspect of the invention wherein "one side of the anti-reflective coating is free of connection to solid or liquid material." Claims 52 and 53 distinguish over Yin, who fails to teach or suggest the features of these dependent claims.

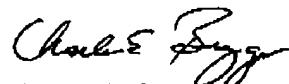
In the above-mentioned interview, the undersigned and Laszlo Takacs explained that the optical fibers of Yin were made of quartz and would not be made of polymer. Accordingly, Examiner Peng agreed that Claim 1 patentably distinguished over Yin. Additionally, Examiner Yin acknowledged that new dependent Claims 52 and 53 additionally distinguish patentably over Yin on their own merits.

For the foregoing reasons, Applicant respectfully submits that the pending claims should be allowed.

The certificate of fax transmission for this document appears in the accompanying Petition for Revival of Application for Patent Abandoned Unintentionally under 37 CFR 1.137(b).

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Respectfully submitted,



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